18. (Amended) A process for producing a protein, which comprises

(a) culturing a cell according to claim 17 in a suitable culture medium; and

(b) purifying said protein from the culture.

REMARKS

Claims 3, 4, 8, 15, 17 and 18 have been amended to better recite the patentable nature of the present invention and/or for better idiomatic format. Claims 1, 2, 5-7 and 9-14 have been cancelled to reduce the issues. No new matter has been added.

Claims 5-8, 11, 13 and 14 stand rejected under 35 U.S.C. §102(e) as being anticipated by Yu, U.S. Patent No. 6,171,816. The Examiner notes Yu SEQ ID NO:2 is 100% identical to Applicants' SEQ ID NO:9 and Yu's DNA (SEQ ID NO:1) is 99.7% and 97.9% identical to Applicants' SEQ ID NOS:18 and 27, respectively. Yu claims benefit of provisional 60/024,347, filed August 23, 1996.[1]

Yu's SEQ ID NO:2 is 175 amino acids and Yu's SEQ ID NO:1 is 875 base pairs. Yu does not teach, however, an isolated polypeptide consisting of amino acids 19-175 of SEQ ID NO:9, as recited in claim 8. Accordingly, claims 5-7, 11, 13 and 14 having been cancelled, this rejection is respectfully traversed.

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[1] The Office Action did not include a copy of Yu's provisional application. To

Claims 5-18 are rejected under 35 U.S.C. §101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well-established utility.

At the outset, this is a somewhat incongruous position. The Examiner plainly acknowledges Yu is prior art. Yu certainly teaches utility for, e.g., his SEQ ID NO:2 (see Yu at column 2, lines 62 et seq. and column 4, lines 50 et seq.) teaching that such is protein encoded by the colon cancer specific gene huXAG-1. Yu further shows huXAG-1 is a human growth factor involved in embryogenesis, and is expressed in adult tissue. See column 7, lines 66 et seq. Yu specifically states overexpression of such growth factor can lead to cancer (column 8, lines 4-5). Indeed, Yu teaches in Example 8 from column 52, line 61 to column 53, line 20 that huXAG-1

> signal was detected in cells derived from a human colon carciroma. No signal was detected in any other tissue further comfirning the gene is colon cancer-specific.

Id at lines 17-20.

Plainly, the prior art recognizes the utility of the present invention.

This is exactly as alleged by Applicants, who stated the protein encoded was secreted from human stomach cancer. Clearly, the DNA levels can be utilized to determine human cancer.

Accordingly, respectfully submitted, the rejection under 35 U.S.C. § 101 is overcome and withdrawal thereof is earnestly solicited.

Claims 5-18 are also rejected under 35 U.S.C. §112 first paragraph. In support of this rejection, the Examiner states that because the invention is not supported by a substantial asserted utility, one of ordinary skill would not know how to use it. However, as seen explained above, the present invention is supported by a specific and substantial utility.

In view of the above amendments and remarks, Applicants submit that all of the Examiner's concerns are now overcome and the claims are now in allowable condition. Accordingly, reconsideration and allowance of this application is earnestly solicited.

Claims 3, 4, 8 and 15-18 remain presented for continued prosecution.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. Cancelled.

2. Cancelled.

3. (Amended) cDNA[s containing any of] comprising the base sequence[s] represented by Sequence ID No.[10 to Sequence No.]18.

4. (Amended) cDNA[s described in Claim 3 which] compris[e]ing the base sequence[s] represented by Sequence ID No.[19 to Sequence No.]27.

5. Cancelled.

6. Cancelled.

7. Cancelled.

8. (Amended) An isolated [fragment of a] polypeptide consisting of [the] amino acids 19 to 175 of the amino acid sequence set forth in SEQ ID NO:9[, the fragment

9. Cancelled.

10. Cancelled.

11. Cancelled.

12. Cancelled.

13. Cancelled.

14. Cancelled.

15. (Amended) The isolated polynucleotide of claims [12, 13 or 14] 3, 4 or 8, wherein said nucleic acid molecule is operably linked to at least one expression control sequence.

17. (Amended) A transformed cell [comprising] harboring the polynucleotide of claim 15.

18. (Amended) A process for producing a protein [encoded by

(a) culturing a cell [transformed with a vector comprising the polynucleotide of] according to claim [15] 17 in a suitable culture medium: and

(b) purifying said protein from the culture.